

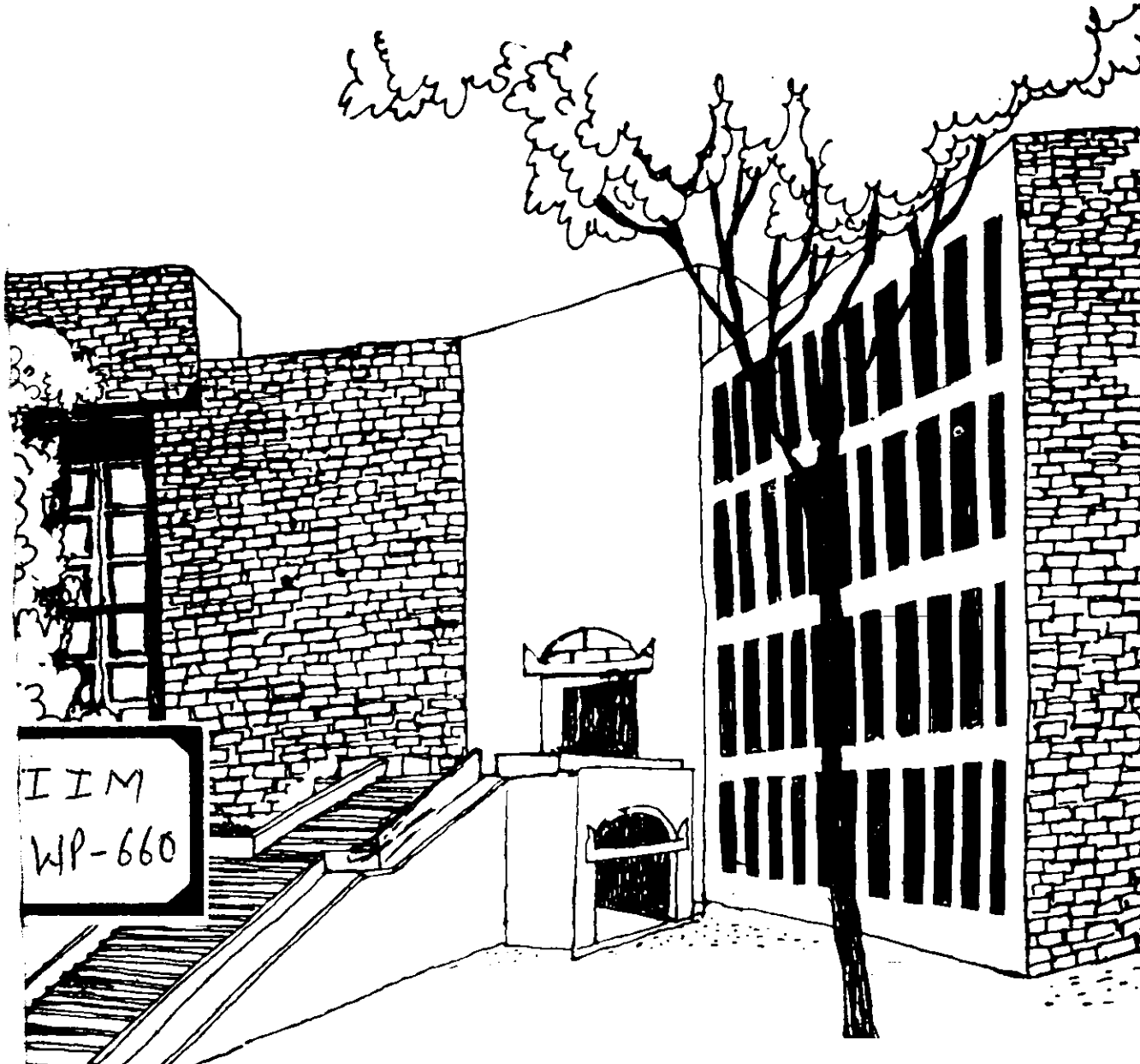


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ORGANISATIONAL BEHAVIOUR ISSUES FOR MANAGERS
AND SYSTEMS-ANALYSTS

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ABSTRACT

Present study is an attempt to explore the interrelationship between job satisfaction areas and different factors of role stresses in EDP managers and system analysts from Public and Private computer organisations. 'ORS Scale' and 'Job Satisfaction Inventory' were administered. The sample comprises of 70 EDP Managers (n = 35 Public Sector; n = 35 Private Sector) and 70 Systems Analysts (n = 35 Public Sector, n = 35 Private Sector). Critical ratio and product moment coefficients of correlations were computed to analyse the data. The findings revealed that EDP managers and system analysts of both, public and private organisations differ significantly in their perception of job area and management area of satisfaction. They also differ significantly on inter-role distance. In some comparison groups, they differ significantly in role stress factors like role expectation conflict, role overload, resource inadequacy, role stagnation and overall role stress.

Coefficients of correlation between job satisfaction areas and role stress factors revealed that most of the role stress factors are negatively and significantly related with on-the-job satisfaction scores namely, job area and management area as compared to off-the-job satisfaction scores throughout the four data sets. Among off-the-job satisfaction, the relationship between personal adjustment area scores and role stress factors in EDP managers (Public) and, social relations area scores and role stress factors in EDP managers (Private) were found to be negative and statistically insignificant. In case of the system analysts (Public) more role stress factors exhibited significant correlations with personal adjustment and social relations areas.

INTRODUCTION

An individual's linkages with organization depends on meeting role expectations as effectively as possible. In the process of meeting the demands of the role expectations, individuals tend to experience different kinds of problems, anxieties and tensions on job. Sometimes, these stresses and strains are successfully overcome and sometimes they result in a state of breakdown affecting the individual and/or organisation. For example, there could be psychosomatic illness, turnover, absenteeism and increased dissatisfaction triggered by job-related tensions. These phenomena are more intense in the organisations which are big and highly dependent on advanced technologies. Computer organisations are one of them. Thus what is more important in this regard, is to explore the various types of role stresses which inhibit the individual's effective functioning and hence retard productivity and job satisfaction.

Computers are so widely used in every walk of life that "if computers were to breakdown for a day, or like an ordinary factory worker, were to go on strike, the whole world might come to a halt" (Gupta, 1974). Associated with computers, is a group of managers and technicians. Several investigations have revealed that there is a strong relationship between role stress and resulting dissatisfaction, psychosomatic disorder and diseases, which largely depends on genetic tendencies and personality factors of individuals as well as physical and psychosocial environment of the organisation (Fresher, 1983).

The available behavioural research on computer personnel is quite scattered making it difficult for them to consult such materials, or for interested researchers to determine the current state of stress and satisfaction among them. There are strong reasons to look into these variables among them. Researches have shown that job-satisfaction is negatively correlated with absenteeism, turnover and other outcome variables (Locke, 1976). Turnover is of special relevance to computer people due to shortage of experienced EDP people and the high cost of new hires. Ives and Olson (1981) and Rockart (1982) have found that the difficulties of hiring and training programmers/analysts are among the most important problems faced by information system managers.

Recent researches have highlighted the factors of role stress in relation to work-life of all categories of organisational role occupants. Pareek (1974) defined role as a position occupied by a person, as defined by the expectations of significant persons including the role occupant himself. This concept of role includes several variables like the self, the other roles as well as the expectations held from the self. Such expectations are varied and it is extremely difficult to imagine a situation in which there is no conflict among these variables. As a matter of fact, the very nature of role has built-in potential for conflict or stress which, in turn, may cause psychological strain such as dissatisfaction, tension, anxiety, absenteeism, turnover etc. Role-stress is a concept that expresses the totality of this phenomenon. Theoretical speculation and statistical analysis (e.g. factor analysis) helped scholars to identify ten components of organisational role stress (Pareek 1983).

Most of the literature available on the topic has been limited to the study of role-ambiguity, role conflict, role stagnation and underload dimensions. However there is scarcely any study which deals with such stressors as self role distance, interrole distance, role-isolation, role-erosion and resource-inadequacy in case of computer professionals. There is however, only one study (Pestonjee and Singh, 1983) which attempted to find out the influence of these variables on EDP managers. Since data professionals place high value on their jobs which allow for achievement, interesting work, recognition and growth opportunities (Awad, 1977, Fitz-Enz, 1978), they are more likely to experience high role stress and job-dissatisfaction. With regard to role-stress and job satisfaction relationship it may be observed that the same elements which are identified as generator of unacceptable stress are also defined as dissatisfiers or causes of dissatisfaction. Thus in a stress-strain analysis, dissatisfaction is a manifestation of strain and, correspondingly, satisfaction is a manifestation of a well adapted response to a level of stress that tends towards the optimum.

Majority of researchers attempted and defined job satisfaction as "a general attitude which is the result of many specific attitudes (Blum, 1956; Blum and Maylor, 1968). Some of the psychologists suggest that it is "derived from and is caused by many interrelated factors" (Harrel, 1964). Sinha (1974) has given support to this approach. It may be therefore, concluded that job-satisfaction is determined not only by attitudes toward different job aspects but that social and personal adjustments also play an important role in it. Pestonjee (1973) concluded that job satisfaction is summation of on-the-job and off-the-job factors where on-the-job satisfaction comprises of job and management areas and off-the-job satisfaction comprises of personal-adjustment and

social-relations areas. Summation of one's attitude on above two accounts for overall job-satisfaction or dissatisfaction.

Since our sample for present study, namely, EDP managers and systems analysts are viewed as 'change agent' and 'group of specialists, they are naturally allocated with power in the organization which is source of both, their successes and problems. Barbol and Martin (1982) in their review on MIS personnel had observed that they are highly 'motivated by achievement, interesting work and growth opportunity' whereas roles, to be performed by managers and systems-analysts are found to be different and very much intertwined. For example, the EDP manager's role include taking decision to use computer to solve a particular set of business problems; formulating long term computer policies, plans and strategies; comprehensively understanding the impact of computer technology on the employees and managing the human resources effectively. Besides, they are required to balance the inherent conflicts of development versus operations, effectiveness versus efficiency, user service versus technological advancement and user control versus a central data resource. On the other hand, systems analysts role- as described by Papetti (1967) involve looking at departmental procedure and analysing information needs in consultation with user staff; assessing, studying and suggesting new procedures for better use of electronic-data-processing, collaborating with programming staff in drawing up schedule of programme to be written and if required, preparing complete documentation of procedures in such a way as to give a clear indication of programming

steps as well as planning the arrangements for revising a department's procedure and defining the specific activities to be subjected to analysis.

Though some researches have been reported on systems analyst (Couger and Zawacki, 1980; Hebden, 1975, Aranya and Jacobson, 1975; Aranyer, Jacobson and Shye, 1975; Awad, E.M.1977), researchers have largely ignored the specific role of information systems managers, both as an administrator of the data processing organization and as a leader of information utilization in the organization. The available data strongly emphasise the importance of people skills because many EDP managers have been promoted to their positions based on their technical skills and they may have had little training in interfacing with and managing people (Benbasat, Dexter and Mantha, 1980). Hence, an in-depth study is required for the understanding about how well they are able to cope with their role-expectations. Here, it is important to recognise that the way in which an individual defines his own role and has this defined for him by the organization in which he works is inextricably bound up with his ability to achieve job satisfaction or role stress. In the present study we attempt to highlight the interrelationship between four aspects/facets of job satisfaction and ten different type of role stress factors in managers and systems analysts of public and private computer organizations seperately.

Many controlled laboratory experiments, field observations and large scale epidemiological investigations have revealed that there is a strong causal relationship between role stresses and resulting job-

dissatisfaction. In a more recent study on information system professionals, Bostron (1981) found negative correlation between role-conflict, role ambiguity and job dissatisfaction. Goldstein and Rockert (1983) observed that in case of programmers/analysts, growth, coworker, supervision and general-satisfaction are negatively and significantly related with role ambiguity and different type of role conflicts namely, personal role conflict, intrasender conflicts and intersender role conflicts. These results are consistent with the findings of other researchers who have examined the relationship between role stresses and job satisfaction in many different types of jobs and organizations. However, Bartol and Martin (1982) have noted in their review "Too many studies (on EDP personnel) fell in the descriptive category. They provided data which describes a current condition, such as the level of job-satisfaction; but neither formulated hypothesis nor collected data..... A little more effort at the study design stage could make..... research more useful".

Fitz-End (1979) in his study on data-processing personnel who were asked to rank job factors had found that 'computer operators gave similar rankings as data control personnel and programmers but the computer operator's ranking differed significantly from those given by analysts and supervisors. These results support the suggestion that it may be useful to consider occupational differences within data processing personnel. Secondly, due to varying style of management, structuring of job and objectives of organizations, it was proposed that the type of organizations, besides job category may make some difference in experience of role stresses and job satisfactions in computer professionals. Hence, these aspects also have been given due importance in present study.

In the light of above evidence and paucity of such research in India we seek to examine:

1. Organisational role stress and job-satisfaction experienced by EDP Managers and Systems Analysts of Public and Private computer organisations separately;
2. The inter-relationship between dimensions of role stress including overall role stress and job-satisfaction in each job category of computer professionals of both types of organisations.

METHODOLOGY

1.0 Sample:

Total 140 computer professionals from Public and Private computer organisations were contacted on their job-sites to participate in this study. From Public Sector, seventy Computer Personnel were included in the sample consisting of 35 EDP Managers (Pub.) and 35 Systems-Analysts (Pub.). Likewise, total 70 computer-personnel were included from private organisations consisting of 35 EDP Managers (Pvt.) and 35 Systems Analysts (Pvt.). Age groupings of the sample were as follows:

Category	Number	Mean Age	Range
1. EDP Managers (Pub)	35	37.09 Years	27 to 55 Years
2. EDP Managers (Pvt)	35	35.71 Years	23 to 49 Years
3. Systems Analysts (Pub)	35	29.91 Years	24 to 43 Years
4. Systems Analysts (Pvt)	35	28.97 Years	23 to 50 Years

2.0 Instruments:

2.1 Employees' Satisfaction-Dissatisfaction Inventory:

The measure of job satisfaction was obtained from the 'Employees' Satisfaction-Dissatisfaction Inventory' standardised by Pestonjee (1973). It provides an estimate of one's satisfaction in four important areas, namely, job, management, personal adjustment and social relations. Job and Management areas taken together are known as on-the-job factors while the later two are known as off-the-job factors. Each of these four areas include the following factors:

1. Job : Nature of work; hour of work; fellow workers; opportunities for promotion and advancement; machines and tools; etc.
2. Management : Supervisory treatment; participation; rewards and punishments; praise and blame; leave policies; favouritism; etc.
3. Personal Adjustment: Emotionality; health; home and living conditions; finance; relations with family members; etc.
4. Social Relations : Neighbours; friends and associates; attitudes toward people in the community; participation in social activities; sociabilities; cast barriers; etc.

There are 20 items in each area. Each item would be responded in terms of 'Yes' or 'No'. The items are framed in the form of interrogatory statements. The areawise split-half reliability coefficients for the 'job', 'management', 'social relations' and 'personal adjustment' of the inventory were found to be .99, .99, .98, and .93 respectively. The inventory has recently been factor-analysed which yielded 10 factors^{for}/on-the-job and 11 factors for off-the-job dimension of satisfaction (Pestonjee, 1981)

2.2 Organisational Role-Stress Scale:

'Organisational role-stress scale' developed and standardised by Pareek (1981) had been used to obtain scores on different type of role-stresses one encounters in his role. This scale measures ten different factors of role-stress. A brief description of these role stresses are given below:

1. Inter Role Distance (IRD):

Indicates the distance between organisational roles and non-organisational roles.

2. Role Stagnation (RS):

This type of stress occurs when individual perceives that there is no opportunity for him to grow. As the individual grows, there is need to occupy better roles. This need is not satisfied in many organisation.

3. Role Expectation Conflict (REC):

It is that type of conflict which is generated in the role-incumbant by different expectations by significant persons about the same role.

4. Role Erosion (RE):

Such occasions when role occupant feels that some functions which should properly be belonging to his role are performed by some other roles. It ultimately leads to stress of role-erosion in person.

5. Role Overload (RO):

This type of role stress occurs when the role occupants feel that the demands and expectations from other roles in his role set are more than enough to meet effectively.

6. Role Isolation (RI):

When the role-occupant feels that certain roles are psychologically near to him while some other roles are at distance, then he feels this type of stress.

7. Personal Inadequacy (PI):

When the role occupant feels that he does not have necessary skills and training for effectively performing the functions expected from his role.

8. Self Role Distance (SRD):

When person occupies a role that goes against his self concept, then this type of stress occurs.

9. Role ambiguity (RA):

It refers to the lack of clarity about the expectations of a role which may arise out of lack of information, understanding etc.

10. Resource Inadequacy (RIIn):

This type of stress is evident when the role occupant feels that he is not provided with adequate resources for performing the functions expected of his roles.

There are 50 items in the questionnaire, 5 for each role stress dimension. The respondent is asked to mark 'zero' if he rarely or never feels the way described in the item and 'four' if he very frequently or always feels the way described in the item. The total score for each dimension are obtained simply by adding the scores of each item of a particular area. Total role-stress score is obtained by adding the scores of various dimensions. The test-retest reliability was found to be .45, .58, .63, .65, .53, .37, .58 and .73 for self role distance, inter role distance, role stagnation, role ambiguity, role overload, role erosion, role inadequacy and total role stress.

3.0 Procedure:

The questionnaire - battery consisting of 'S.O. Employee Inventory' and 'ORS Scale' was administered to the random sample of managers and systems-analysts of public and private computer organizations. The participation of respondents was voluntary and confidentiality of responses was fully assured. For gathering the raw-data on variables under study, questionnaire technique was used because it, as standard set of stimuli, provide a basis for comparison across the respondents i.e. in process of questionnaire administration, all respondents receive identical stimulus and hence, the responses across the population is comparable.

4.0 Analysis Technique:

For the objective of study i.e. comparison across job levels as well as among individuals of two organizations, the organizational level of analysis was preferred. Hence, the aggregated scores of individuals in each category had been used as data for analysis of objectives.

In order to compare the mean scores obtained by each category on factors of role stress and job satisfaction, Critical Ratio test was carried out for all the comparison groups. Further correlation coefficients were computed to find out the bivariate relationship between variable under study for all the four data sets of computer personnel seperately. Critical ratio values and correlation coefficients, the obtained for/above were checked at .05 and .01 level of significance.

R E S U L T S

Table-1 presents descriptive statistics namely means and standard deviation scores for four data sets, and critical ratio values (higher than 1.00) and level of significance for six possible comparison groups of managers and systems analysts of two types of organizations.

As regards factors of role stress and overall role stress at large, it can be seen from table-1 that computer personnel of private organizations (i.e. either managers or systems analysts) scored higher on factors of role stress as well as overall role stress; the only exception is role erosion. Role stress factors on which Managers (Pvt) scored high were found to be as follows:

on overall role stress, managers (Pvt) scored highest (59.77) followed by SA (Pvt) (56.46), Managers (Pub) (52.03) and SA (Pub) (45.06); on role expectation conflict managers (Pvt) scored highest (5.17) followed by SA (Pvt) (4.40), managers (Pub) (3.54), and SA (Pub) (2.74); on role overload, managers (Pvt) scored highest (5.57) followed by SA (Pvt) (5.26), managers (Pub) (5.06) and SA (Pub) (2.29); on Personal Inadequacy, managers (Pvt) scored highest (4.57) followed by SA (Pvt) (4.63), SA (Pub) (3.97) and managers (Pub) (3.67); on role ambiguity, managers (Pvt) scored highest (4.40) followed by SA (Pvt) (4.11), managers (Pub) (3.90) and SA (Pub) (3.89); and on resource inadequacy, managers (Pvt) scored highest (6.46) followed by SA (Pvt) (6.20), managers (Pub) (6.00) and SA (Pub) (4.51).

The role stress factors on which SA (Pvt) scored highest were found to be as follows:

On inter role distance, SA (Pvt) scored highest (8.63) followed by managers (Pvt) (8.11), managers (Pub) (5.46) and SA (Pub) (3.83); on role-stagnation, SA (Pvt) scored highest (6.91) followed by managers (Pvt) (6.06), managers (Pub) (5.49) and SA (Pub) (4.29); on role isolation, SA (Pvt) scored highest (5.86) followed by SA (Pub) (5.74), managers (Pub) (5.60) and manager (Pvt) (5.51); and on self role distance, SA (Pvt) scored highest (6.03) followed by managers (Pvt) (5.40), managers (Pub) (4.94) and SA (Pub) (4.06).

Managers (Pub), however scored higher on role erosion (8.09) followed by SA (Pub) (8.06), managers (Pvt) (8.00) and SA (Pvt) (7.97). It is evident from above presentation that except for role erosion and to some extent role isolation (in which managers (Pub) and SA (Pub) scored higher than managers (Pvt)), all role stress factors including overall role stress were found to be dominant for computer personnel working in private organisation. Table-2 shows at a glance the ranks secured by managers and SA of both type of organisations on various role stress factors where '1' represents to the highest score; '2' represents to next highest score and so on upto '16' which represents to lowest score. A most notable feature which can be seen from this table is that role-erosion and to some extent, resource inadequacy are common contributors where as role-expectation conflict and personal inadequacy are remote contributors to role stress.

As regards job satisfaction scores in different areas as well as overall job satisfaction at large, it can be predicted from table-1 that role-incumbents of private computer organisations scored higher in all areas than their counter parts in public organisation except in case of job and personal adjustment areas. However, the difference in areawise as well as total job-satisfaction scores were not found to be much higher in computer professionals of two types of computer organisations. As regards job

category, in case of Public Computer organizations, SA (Pub) scored higher than managers (Pub) where as in case of Private Computer Organisations, managers (Pvt) scored higher than SA (Pvt) on all the satisfaction areas as well as on overall job-satisfaction. The areas in which private sector exhibited high satisfaction scores were found to be as follow:

On management area managers (Pvt) scored highest (16.17) followed by SA (Pub) (14.66), managers (Pub) (14.03, and SA (Pvt) (13.00); on social relations area managers (Pvt) scored highest (15.86) followed by SA (Pvt) (15.49), SA (Pub) (15.20) and managers (Pub) (14.49); on-the-job satisfaction, managers (Pvt, scored highest (30.17) followed by SA (Pub) (29.52), SA (Pvt) (27.43) and managers (Pub) (27.20), on off-the-job satisfaction managers (Pvt) scored highest (31.97) followed by SA (Pub) (31.03), SA (Pvt) (31.49, and managers (Pub) (30.37) and on overall job satisfaction, managers (Pvt) scores highest (62.20) followed by SA (Pub) (61.34), SA (Pvt) (58.92, and managers (Pub) (57.57).

Public sector computer personnel scored high on following areas:

On job area, SA (Pub) scored highest (14.06) followed by managers (Pvt) (14.06), SA (Pvt) (13.03) and managers (Pub) (13.17), on personal adjustment area, SA (Pub) scored highest (16.03) followed by managers (Pvt) (16.10), SA (Pvt) (16.00) and managers (Pub) (15.91).

Column 11-16 of table-1 presents critical ratio values ~~more~~ than 1.96 for the six possible comparison groups. Test for significance of mean-difference in first comparison group, namely, manager (Pub) versus manager (Pvt) revealed management area of job satisfaction ($C_r = 2.16$, $P < .05$) and inter role distance ($C_r = 2.65$, $P < .01$) as significantly different. In case of second comparison group, namely manager (Pub) versus SA (Pvt), the difference in mean inter role distance, was found to be statistically significant at .05 level ($C_r = 1.97$). Third comparison group, namely, SA (Pub) versus SA (Pvt) exhibited mean role stress scores of three factors, namely, role stagnation

(CR = 1.96, $P < .05$), role expectation conflict (CR = 2.00, $P < .05$) and role overload (CR = 3.87, $P < .01$) as significantly different. Scores on role stress and job satisfaction factors, when tested for significance of difference in fourth comparison group i.e., manager (Pvt) versus SA (Pub), the difference in mean role stress score of inter role distance (CR = 3.94, $P < .01$), role expectation conflict (CR = 2.83, $P < .01$), role overload (CR = 4.74, $P < .01$), resource inadequacy (CR = 2.08, $P < .05$) and overall role stress (CR = 2.36, $P < .05$) were found to be statistically significant. It is interesting to note that none of the score in job satisfaction areas, including overall job satisfaction were found to differ significantly in later three comparison groups.

Column 15 and 16 of table-1 presents critical ratio values found to be more than 1.00 for the comparison groups of managers and systems analysts of two types of organisations. It is evident from column 15 of table-1 that when the scores obtained by managers and systems analyst of public computer organisation were tested for significance of difference, the difference, the difference in mean satisfaction score of job area (CR = 2.24, $P < .05$), inter role distance (CR = 1.96, $P < .05$) and role overload (CR = 3.73, $P < .01$) were found to be statistically significant. On the other hand, difference in mean satisfaction scores of job area (CR = 4.75, $P < .01$) as well as management area (CR = 2.45, $P < .05$) were formed to be statistically significant in case of managers and system analysts of Private Computer Organisation. Interestingly, none of the role stress factors' score significantly differed in later group.

CORRELATIONS

Table 3 to 6 summarise the Pearson Product moment coefficients of correlation between factors of organisational role stress and job satisfaction including total job-satisfaction scores for all the four sample groups, separately. It is evident from these tables that job satisfaction and its component variables are negatively related with different factors of role stress and at large, to overall organisational role stress.—Detailed analysis of these correlational tables are given below:

Job Area:

As it can be seen from the table 3, 4, 5 and 6, the inter correlation coefficients between job area and factors of role stress including overall role stress were found to be negative and statistically significant with role-stagnation, role expectation conflict, self role distance, resource inadequacy and overall role stress in all the four data sets of computer personnel. As regards managers of two types of organisations (table 3 and 4) job area correlated negatively and significantly with inter role distance ($r = -.43, P < .01$ and $r = -.39, P < .05$), role stagnation ($r = -.62$ and $-.65, P < .01$), role expectation conflict ($r = -.66$ and $-.48, P < .01$), role overload ($r = -.56, P < .01$ and $r = -.40, P < .05$), self role-distance ($r = -.47$ and $-.57, P < .01$), resource inadequacy ($r = -.56$ and $-.45, P < .01$) as well as overall role stress ($r = -.72$ and $-.59, P < .01$). Further, in case of managers (Pub) role erosion ($r = -.35, P < .05$) and role isolation ($r = -.37, P < .05$), and in case of managers (Pvt) role ambiguity ($r = -.46, P < .01$) were found to be associated with job area.

In case of systems analysts of both types of organisations (table 5 and 6) job area of satisfaction was found to negatively and significantly associated with role stagnation ($r = -.50$ and $-.55$, $P < .01$), role expectation conflict ($r = -.35$, $P < .05$ and $r = -.50$, $P < .01$), role erosion ($r = -.35$ and $-.41$, $P < .05$), role isolation ($r = -.43$, $P < .01$ and $-.39$, $P < .05$), self role distance ($r = -.40$, $P < .05$ and $r = -.46$, $P < .01$), role ambiguity ($r = -.36$, and $r = .41$, $P < .05$) resource inadequacy ($r = -.33$, $P < .05$ and $r = -.48$, $P < .01$) as well as overall role stress ($r = -.50$ and $-.50$, $P < .01$). In case of systems analysts (Pvt) two more role stress factors, namely, inter role distance ($r = -.41$, $P < .05$) and role overload ($r = -.43$, $P < .01$) were found to correlated significantly with job area where as correlation coefficients of these variables in case of SA (Pub) were found to be statistically insignificant.

Management Area:

Four factors of role stress, namely, role-stagnation, role-expectation conflict, self-role distance, resource inadequacy as well as overall role stress were found to be negatively and significantly associated with management area of job satisfaction in all the four data sets (Table 3, 4, 5 and 6). More precisely, in case of managers of two types of organisations (Table 3 and 4) management area was found to be negatively and significantly related with role-stagnation ($r = -.62$, and $r = -.50$, $P < .01$), role expectation conflict ($r = -.47$, $P < .01$ and $r = -.38$, $P < .05$), role-isolation ($r = -.38$, and $r = -.40$, $P < .05$), self role distance ($r = -.46$, $P < .01$ and $r = -.42$, $P < .05$), resources inadequacy ($r = -.63$ and $r = -.50$, $P < .01$) and overall role stress

($r = -.66$ and $r = -.40$, $P < .01$). Further, role overload ($r = -.42$, $P < .01$) and personal inadequacy ($r = -.42$, $P < .05$), in case of managers (Pub), and role ambiguity ($r = -.37$, $P < .05$) in case of managers (Pvt) were also found to be negatively and significantly related with management area.

As regards systems analysts of two types of computer organisations, their scores on Management area was found to be negatively and significantly correlated with role-stagnation ($r = -.58$ and $r = -.51$, $P < .01$), role expectation conflict ($r = -.54$, and $r = -.43$ $P < .01$), role overload ($r = -.47$ and $r = -.45$, $P < .01$), self-role distance ($r = -.41$, and $r = -.36$, $P < .05$), role ambiguity ($r = -.45$, $P < .01$ and $r = -.39$, $P < .05$), resource inadequacy ($r = -.56$, and $r = -.48$, $P < .01$) and overall role stress ($r = -.65$, $P < .01$ and $r = -.42$, $P < .05$). Some ORS factors like role isolation ($r = -.44$ $P < .05$) and personal inadequacy ($r = -.35$, $P < .05$) in case of SA (Pub) and role erosion ($r = -.40$, $P < .05$) as well as inter role distance ($r = -.45$, $P < .01$) in case of SA (Pvt) were also found to be negatively and significantly associated with management area.

Personal Adjustment Area:

It can be seen from table 3, 4, 5 and 6 that none of the role stress factors including overall role stress was found to be correlated significantly with personal adjustment area in all the four data sets. In case of managers of both types of organisations (table 3 and 4)

inter role distance ($r = -.43, P < .01$ and $r = -.33, P < .05$) and overall role stress ($r = -.39$ and $-.35, P < .05$) were found to be negatively and significantly associated with it. Some factors of role stress like role stagnation ($r = -.56, P < .01$), role expectation conflict ($r = -.36, P < .05$), role overload ($r = -.34, P < .05$) and personal inadequacy ($r = -.40, P < .05$) exhibited negatively significant correlation in case of manager (Pvt) whereas these factors remained insignificant for managers (Pub).

As regard correlation coefficients in case of systems analysts, it can be seen from table 5 and 6, that in case of SA (Pub) scores on personal adjustment area of satisfaction were found to be negatively and significantly associated with personal inadequacy ($r = -.46, P < .01$), self-role-distance ($r = -.40, P < .05$) role ambiguity ($r = -.41, P < .05$) and overall role stress ($r = -.57, P < .01$). In case of SA (Pvt), personal adjustment area had correlated negatively and significantly with one role stress factor, namely, role isolation ($r = -.35, P < .05$).

Social Relations Area:

Like personal adjustment area, none of the role stress factor including overall role stress correlated negatively and significantly with social relation area in all the four data sets. In case of managers (Pub) (Table 3 and 4), role inadequacy ($r = -.45, P < .01$), role ambiguity ($r = -.35, P < .05$) and overall role stress ($r = -.36, P < .05$) were found to be negatively and significantly correlated with social relations

area where as none of the correlation coefficients between factors of role stress and social relations area in case of Managers (Pvt) were found to be statistically significant.

In case of systems analysts (Pub) (Table 5 and 6) social relations area, was found to be negatively and significantly correlated with role-stagnation ($r = -.43, P < .01$), role inadequacy ($r = -.66, P < .01$), personal inadequacy ($r = -.52, P < .01$), self role distance ($r = -.53, P < .01$) role ambiguity ($r = -.41, P < .05$) and overall role stress ($r = -.57, P < .01$). On the other hand, in case of systems analyst (Pvt) it associated negatively and significantly with role overload ($r = -.40, P < .05$).

On-The-Job Satisfaction:

As regards scores ^{on} on-the-job satisfaction and factors of role stress including overall role stress, it can be seen in table 3, 4, 5 and 6 that the inter-correlation between on-the-job satisfaction and role stagnation, role expectation conflict, role overload, self role distance, role ambiguity, resource inadequacy as well as overall role stress had been found to be negative and statistically significant. Quantitatively, significant correlation coefficients ranged between $-.34$ to $-.73$. In case of managers of two types of computer organisations, on-the-job satisfaction associated negatively and significantly with inter role distance. ($r = -.34$ and $r = -.34, P < .05$), role stagnation ($r = -.63$, and $r = -.62, P < .01$), role expectation

conflict ($r = -.59$, and $r = -.46$, $P < .01$), role overload ($r = -.52$, $P < .01$ and $r = -.38$, $P < .05$) role isolation ($r = -.40$, and $r = -.34$, $P < .05$), self role distance ($r = -.50$, and $r = -.54$, $P < .01$), role ambiguity ($r = -.35$, $P < .05$ and $r = -.46$, $P < .01$), resource inadequacy ($r = -.64$ and $r = -.33$, $P < .01$) and overall role stress ($r = -.73$ and $r = -.59$, $P < .01$). Further, in case of managers (Pub) personal inadequacy ($r = -.36$, $P < .05$) was also found to be significantly related with on-the-job satisfaction.

As regards systems analysts of public and private organisations, on-the-job satisfaction correlated negatively and significantly with role stagnation ($r = .58$ and $r = .56$, $P < .01$), role expectation conflict ($r = -.50$ and $r = -.48$, $P < .01$), role overload ($r = -.40$, $P < .05$ and $r = -.48$, $P < .01$), self role distance ($r = -.43$ and $r = -.45$, $P < .01$), role ambiguity ($r = -.44$, $P < .01$ and $r = -.42$, $P < .05$) resource inadequacy ($r = -.52$, and $r = -.55$, $P < .01$) and overall job satisfaction ($r = -.60$ and $r = -.52$, $P < .01$), on-the-job satisfaction were also found to be negatively and significantly related with inter role distance ($r = -.41$, $P < .05$) and role erosion ($r = -.43$, $P < .01$) in case of SA (Pvt) and with role isolation ($r = -.47$, $P < .01$) in case of SA (Pub).

Off-The Job Satisfaction:

It can be seen from table 3, 4, 5 and 6 that when scores on off-the-job satisfaction were correlated with factors of role stress including overall role stress, only role-stagnation type of stress was

found to be negatively and significantly related in all the four data sets of computer professionals. In case of managers of both public and private organisations, off-the-job satisfaction was found to be negatively and significantly related with role stagnation ($r = -.37$, $P < .05$ and $r = -.45$, $P < .01$) and overall role stress ($r = -.43$, and $r = -.35$, $P < .05$). In managers (Pub) role isolation ($r = -.40$, $P < .05$) and role ambiguity ($r = -.34$, $P < .05$) whereas in managers (Pvt), personal inadequacy ($r = -.39$, $P < .05$) were also found to be negatively and significantly associated with off-the-job satisfaction.

As regards systems analysts (Pvt and Public both), besides role stagnation, role isolation ($r = -.54$, $P < .01$) and $r = -.36$, $P < .05$) was found to be significantly and negatively related with off-the-job satisfaction. In case of SA (Pub) Personal inadequacy ($r = -.57$, $P < .01$), self role distance ($r = -.54$, $P < .01$) role ambiguity ($r = -.47$, $P < .01$) and overall role stress ($r = -.55$, $P < .01$) and in case of SA (Pvt) inter role distance ($r = -.56$, $P < .01$), role expectation conflict ($r = -.55$, $P < .01$) and role overload ($r = -.41$, $P < .05$) were also found to be negatively and significantly correlated with off-the-job satisfaction scores.

Overall Job Satisfaction:

It can be seen from the table 3, 4, 5 and 6 that as many as six role stress factors, namely, role-stagnation, role expectation conflict, self-role distance, role ambiguity, role overload and resource inadequacy as well as overall role stress scores correlated negatively and significantly with overall job satisfaction in all the datasets under

study. Role erosion, however did not correlate significantly with overall job satisfaction score in any of the four sample groups. As regards EDP manager of both types of organisations (table 3 and 4) negative and statistically significant inter relationship was found between job satisfaction and inter role distance ($r = -.37$, and $-.39$, $P < .05$), role stagnation ($r = -.60$ and $-.65$, $P < .01$), role expectation conflict ($r = -.53$ and $-.46$, $P < .01$), role overload ($r = -.37$ and $-.41$, $P < .05$), self role distance ($r = -.49$, and $-.48$, $P < .01$), role ambiguity ($r = -.40$ and $-.39$, $P < .05$), resource inadequacy ($r = -.55$, $P < .01$ and $r = -.41$; $P < .05$) and overall role stress ($r = -.69$ and $-.58$, $P < .01$). Role Isolation ($r = -.46$, $P < .01$) and personal inadequacy ($r = -.36$, $P < .05$) correlated significantly only in case of manager (Pvt).

Job satisfaction scores, in case of SA public and private organisations (Table 5 and 6) was found to be negatively and significantly correlated with role stagnation ($r = -.63$ and $-.60$, $P < .01$), role expectation conflict ($r = -.48$ and $-.61$, $P < .01$), role overload ($r = -.43$ and $-.53$, $P < .01$) role isolation ($r = -.62$, $P < .01$ and $r = -.40$, $P < .05$), self role distance ($r = -.57$, $P < .01$ and $r = -.41$, $P < .05$), role ambiguity ($r = -.55$, $P < .01$ and $r = -.39$, $P < .05$) resource inadequacy ($r = -.51$ and $-.49$, $P < .01$) and overall role stress ($r = -.70$ and $-.45$, $P < .01$). In case of SA (Pub), personal inadequacy ($r = -.49$, $P < .01$) and in case of SA (Pvt), inter role distance ($r = -.53$, $P < .01$) were also found to be associated with overall job satisfaction score significantly.

DISCUSSION

Several studies have observed that role stress or pressure is bad for mental and physical health. Recent studies, as Kets de Vries (1979) had noted, have established that each individual needs a moderate amount of stress to be alert and capable of functioning effectively in the organisation. An organisation completely without stress might make for complacency among its participants, may neglect environmental danger signs and support lethargy and low productivity.

The significant differences observed in job satisfaction areas and factors of role stress scores obtained by different categories of computer professional of public and private organisations seem to be in agreement with Herain's (1973) study of factors which inhibit its job performance in public sector. In his study, managers identified "Lack of clear definition of responsibilities" as a powerful inhibitor in public sector. Lack of a firm, clear and formal code of job expectation, conflicting and frequently changing policies, numerous and more ambiguous objectives which are less distinguishable from qualifying conditions etc. are the characteristic of public enterprises and affect the nature of job, expectations and responsibilities, resulting in increased job dissatisfaction and various types of role stresses. Contrary to this, private organisations have clear, firm and formal code of job expectations, freedom to optimise own performance in pursuit of a single or stable and competible objective and uses convergent means to achieve a single purpose. In other words, managers and systems analysts of

private sector know what is expected from them and how they would be held accountable for it. Hence, it is easier and clearer for private sector managers to plan, organise, coordinate, motivate and control others towards desired company goals, than their counterparts in the public sector. These characteristics of organisation seem to account for significant differences which we observe among the role-incumbents of two types of organisation. In other words, as compared to public sector computer professionals (either EDP manager or systems analysts), private sector computer professionals scored significantly higher on management area of job satisfaction, inter role distance, role stagnation, role expectation conflict, role overload, resource inadequacy and organisation role stress.

It is mentioned elsewhere (see 'Introduction') that the roles of EDP managers and system analysts are highly varied and yet, intertwined. Barot and Martin (1982) had noted in their review that data processing professionals are motivated by achievement, interesting work and growth opportunities. Enhancement in professional opportunities of these people strengthens commitment to the organisation. Further, Couger and Zarecki (1981) observed that data processing managers have high growth-need-strength and their job have high motivating potential. Hence there is good match between needs of managers and characteristics of their job. Since private computer organisations have precisely defined objectives and role expectations, their EDP managers are able to exercise power over systems analysts and others, inspite of fact that the job facets

like hour of work, fellow workers, machines and tools, achievement activities, security, opportunities for promotion, supervisory treatment, participation in decision-making, working conditions, reward and punishment etc. are appropriately not given due importance. This may be argued as reason for low job and management scores in systems analysts of private sectors as compared to managers (Pvt). On the other hand, conflicting goals, changing policies and 'Lack of clear definition of responsibilities' of public organisations effect maximum the managers (Pub) not only their level of satisfaction in job area but also increases their role-overload and inter-role distance significantly as compared to systems analysts (Pub).

It can be seen from the interpretation of results that on-the-job satisfaction including job and management areas as well as overall job satisfaction, correlated negatively and significantly with more factors of role stress as compared to off-the-job satisfaction including personal adjustment and social relations areas in all the four data sets of computer professionals. However, correlation coefficients ranged between moderate to high. This finding is in agreement with Cooper and Zaubaki (1980) who had observed that JP professionals and managers score considerably lower on social need strength. Social need strength is the degree to which individuals wish to interact with others on and off the job. Woodruff (1980) also observed that computer professionals tend to score below average on 'need for affiliation' which is defined as 'efforts to maintain associations with people'. Keeping in view the type of organisation under study, if we look on these findings than it becomes understandable

that since manager (Pvt) need more to interact and adjust with co-workers and peers than their counterparts of public organisation or the systems analysts, their job satisfaction in personal adjustment area is negatively and significantly influenced by factors of role stress. Personal adjustment area, however, negatively and significantly related with overall role stress in all the four data sets.

As regards satisfaction in social relations area, role stress factors as well as overall role stress in managers (Pvt) do not relate with it indicating that social need have nothing to do with these people. In case of SA (Pvt), it is evident that role overload and resource inadequacy is inversely related with social relations area. It suggests that these factors are source of dissatisfaction in SA (Pvt) as regard social relations area. However, in case of public computer organisations, satisfaction in social relation area was found to be effected by more role stress factors in case of SA than the managers. It may be, therefore, argued that since SA have high need for achievement and growth, they work hard and concentrate in their precisely defined work for their progress, growth in new role, developing new skills and to justify the ambiguous role expectations of significant others. These job related constraints, however, block their satisfaction in social relations area. As off-the-job satisfaction is summation of satisfactions experienced by role occupants in personal adjustment and social relations area, it is, therefore, as per our expectations that more role stress factors correlated

significantly with off-the-job satisfaction in case of computer personnel of public organisations as compared to those of private organisations.

Correlational analysis of scores pertaining to factors of role stress and on-the-job satisfaction in case of managers and SA, further verifies the differences in type of organisations we have mentioned earlier. When on-the-job satisfaction as well as job and management area were correlated with factors of role stress, as it can be seen from the result that with job area, four role stress factors; with management area, four role stress factors and with on-the-job satisfaction six role stress factors correlated significantly in all the four data sets. Personal inadequacy did not correlate significantly with any of these job satisfaction areas indicating that managers and system analysts of both type of organisations perceive themselves skilled and competent enough to handle their job effectively and hence resource inadequacy do not account for stress in job, management or on-the-job satisfaction.

In computer professionals of public organisation, job area satisfaction, was found to be insignificantly related with role ambiguity in case of managers and inter-role distance as well as role overload in case of SA. Except for role erosion and role isolation in case of managers (Pvt) all the role stress factors showed negative and significant relationship with job area in both the groups of private sector. It confirms our prediction that as regards job area satisfaction, more potent source of role stress are present in private sector. However, as regards job categories, both managers and system analysts seem to be equally stressed though the type of stresses are found to be different.

Inter role distance, role erosion and role overload in case of managers (Pvt) and role isolation in case of SA (Pvt) of Private Sector whereas inter role distance, role erosion and role ambiguity in case of public sector computer personals, were found to be insignificant sources of stress with regard to management area of satisfaction. Lack of clear responsibilities, changing policies, varied and conflicting objectives, rigid bureaucratic procedures, and varying management practices like supervision, control, least participation, leave policy etc. may be held responsible for different type of stresses experienced by public sector computer personnel as compared to their counterpart in private sector. As regards job category, more role stress factors were found to correlated significantly in case of SA as compared to managers. .

As expected, all the factors of role stress correlated significantly with on-the-job satisfaction in all the four data sets except to role erosion in managers (Pub and Pvt), role isolation in SA (Pvt) and inter role distance as well as role erosion in SA (Pub). Overall role stress correlated significantly with on-the-job satisfaction in all the sample groups and correlation coefficients ranged between moderate to high. The finding suggests that there is not much difference in type of potential source of role stresses which significantly effect on-the-job satisfaction in either type of organisation under study. However, it is interesting to note that some type of role stresses effect on-the-job satisfaction in SA (Pub) which are insignificant in case of SA (Pvt) (For details, see Result).

Findings of inter correlation between factors of role stress including overall role stress, and overall job satisfaction are, by and large, in agreement with the findings reported by Pestonjee and Singh (1983). They reported all the factors of role stress including overall role stress negatively and significantly correlated with overall job satisfaction. In the present study however, as many as six factors of role stress and overall role stress were found to be negatively and significantly associated with overall job satisfaction. Three role stress factors namely role-erosion, role isolation and personal inadequacy in case of managers (Pvt) personal inadequacy in case of SA (Pvt), of public organisations and two role stress factors namely role-erosion in case of managers (Pub) and role erosion as well as inter role distance of public organisations, however, did not relate significantly with overall job satisfaction.

This finding, overall, suggests that though there are stressors common in both type of organisations, public computer organisations have greater and a more potent source of role stress which significantly relate with overall job satisfaction as compared to private computer organisations. It seems that inter relationship between role stresses and job satisfaction is strong enough to create lethargy and inaction in such organisation. This finding further verifies, why computer professionals of public organisation scored comparatively low on both, factors of role stress including overall role stress as well as on job satisfaction. As regards job categories, job satisfaction of SA in case of private organisation and job satisfaction of managers in case of public organisation is more effected by potential role stress factors.

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TABLE 1

Mean, standard deviation scores, critical ratio value (higher than 1.00) with level of significance pertaining to factors of role stress and job satisfaction for four data sets of computer personnel from Public and Private Computer Organizations

Sl. No.	Variable	Manager (Pub)			Manager (Pvt)			SA (Pub)			Mgr. (Pub) Mgr. (Pvt)			SA (Pub) SA (Pvt)			Mgr. (Pub) Mgr. (Pvt) Mgr. (Pub) Mgr. (Pvt)		
(1)	(2)	Mean (3)	SD (4)	Mean (5)	SD (6)	Mean (7)	SD (8)	Mean (9)	SD (10)	Mgr. (Pub) (11)	Mgr. (Pvt) (12)	SA (Pub) (13)	SA (Pvt) (14)	Mgr. (Pub) (15)	Mgr. (Pvt) (16)	SA (Pub) (17)	SA (Pvt) (18)		
1.	Job Area	13.17	3.43	14.06	3.52	14.86	2.84	13.63	3.28	1.08	0.17	1.41	1.05	2.24	4.75	0.81	0.58		
2.	Management Area	14.03	4.43	16.17	3.86	14.66	4.65	13.80	4.21	2.16**	0.22	0.81	1.48	0.58	7.45	0.93	1.03		
3.	Personal Adj. Area	15.91	3.01	10.18	3.51	16.63	2.87	16.00	2.81	0.33	0.24	0.93	0.60	1.03	0.28	0.40	0.32		
4.	Social Relation Area	14.49	3.47	15.86	2.65	15.20	3.15	15.49	2.83	1.85	1.32	0.40	0.95	0.90	1.71	1.27	1.34		
5.	On-The-Job Satisfaction	27.20	7.50	30.17	6.62	29.52	7.03	27.43	6.76	1.77	0.13	0.26	1.12	1.13	0.31	0.04	1.13		
6.	Off-The-Job Satisfaction	30.37	5.58	31.97	5.34	31.83	5.24	31.49	5.61	0.94	0.04	0.26	1.12	1.13	0.31	0.04	1.13		
7.	Job Satisfaction	57.57	11.24	62.20	9.92	61.34	10.27	58.82	10.41	1.83	0.52	1.19	0.36	1.46	1.35	1.83	1.96**		
8.	Inter Role Distance (IRD)	5.46	4.11	8.11	4.31	3.31	2.77	8.63	8.60	2.65*	1.97**	1.83	3.94*	1.96**	0.32	1.96**	0.32		
9.	Role Stagnation (RS)	5.49	4.55	6.96	4.36	4.89	4.00	6.91	4.65	0.54	1.29	1.96**	1.70	0.50	0.05	1.96**	0.32		
10.	Role Expectation Conflict (REC)	3.54	3.32	5.17	4.24	2.74	2.82	4.40	4.05	1.79	0.80	2.00**	2.83*	1.09	0.79	2.00**	2.83*		
11.	Role Erosion (RE)	8.89	4.19	8.00	3.65	8.06	4.49	7.97	5.18	0.10	0.49	0.08	0.06	0.03	0.13	0.08	0.03		
12.	Role Overload (RO)	5.96	3.96	5.57	3.63	2.29	1.90	5.26	4.12	0.49	0.72	3.87*	4.74*	3.73*	0.35	3.87*	4.74*		
13.	Role Isolation (RI)	5.60	4.99	5.51	3.77	5.74	4.30	5.86	4.28	0.08	0.23	0.12	0.26	0.10	0.30	0.12	0.26		
14.	Personal Inadequacy (PI)	3.89	3.50	4.97	3.85	3.97	4.29	4.83	3.91	1.40	1.06	1.37	1.03	0.09	0.13	1.37	1.03		
15.	Self Role Distance	4.94	3.46	5.40	4.06	4.66	3.41	6.03	4.89	0.51	1.08	1.37	0.83	0.10	0.59	1.37	0.83		
16.	Role Ambiguity (RA)	3.90	3.16	4.40	4.17	4.11	3.86	3.89	3.89	0.57	0.01	0.24	0.29	0.25	0.53	0.24	0.29		
17.	Resource Inadequacy (RII)	6.00	3.57	6.46	4.21	4.51	3.66	6.20	4.44	0.49	0.21	1.76	2.08**	1.70	0.75	1.76	2.08**		
18.	Organisational Role Stress (Total)	52.03	24.79	59.77	27.72	45.06	23.92	56.46	31.10	1.21	0.66	1.72	2.36**	1.82*	0.43	1.72	2.36**		

*Significance at .01 level

**Significant at .05 level

TABLE 2

Relative standing of mean scores of role stress factors in Managers and Systems Analysts of both, public and private computer organisations (N = 35 each).

S1. No.	Role Stress Factors	Cate. 1 Manager (Pub)	Cate. 2 Managers (Pvt)	Cate. 3 SA (Pub)	Cate. 4 SA (Pvt)
1.	Inter Role Distance (IRD)	V	I	VII	III
2.	Role Stagnation (RS)	IV	IV	III	II
3.	Role Expectation Conflict (REC)	X	VIII	IX	IX
4.	Role Erosion (RE)	I	II	I	I
5.	Role Overload (RO)	VII	V	X	VII
6.	Role Isolation (RI)	III	VI	II	VI
7.	Personal Inadequacy (PI)	IX	IX	VIII	VIII
8.	Self Role Distance (SRD)	VI	VII	IV	V
9.	Role Ambiguity (RA)	VIII	X	VI	X
10.	Resource Inadequacy (RIn)	II	III	V	IV

TABLE 3

Inter-Correlation between scores on factors of role stress and job satisfaction in the case of managers (Public)

Sl. No.	Variables	INC	NS	REC	RE7	NUW	RI	PI	SRU	RA	KIN	UHS (T)
1	Job Area	-.43*	-.62*	-.66*	-.35**	-.56*	-.37**	-.24	-.47*	-.33	-.56*	-.72*
2	Management Area	-.23	-.57*	-.47*	-.30	-.43*	-.38**	-.42	-.46*	-.33	-.63*	-.66*
3	Perso.Adj.Area	-.43*	-.30	-.32	-.16	-.11	-.22	-.19	-.30	-.23	-.23	-.39**
4	so.Relat.Area	-.10	-.32	-.16	-.10	-.10	-.45*	-.24	-.27	-.35**	-.23	-.36**
5	un-Job-Satisfaction	-.34**	-.03	-.59*	-.24	-.32*	-.40**	-.36**	-.50*	-.35**	-.64*	-.73*
6	off-Job-Satisfaction	-.29	-.37**	-.26	-.10	-.07	-.40**	-.25	-.35	-.34*	-.27	-.43*
7	Job Satisfaction (T)	-.37**	-.60*	-.33*	-.31	-.37**	-.40*	-.36**	-.49*	-.40**	-.55*	-.69*

* Significant at .01 level

** Significant at .05 level.

TABLE 4

Inter-correlations between factors of role stress and job satisfaction in case of managers (PVT)

Sl.no.	Variables	IND	RO	REC	RE	HU	HI	PI	SRD	RW	RIN	ORS (T)
1	Job Area	-.39**	-.65*	-.40*	-.25	-.40**	-.20	-.17	-.57*	-.46*	-.45	-.59*
2	Management Area	-.20	-.50*	-.30**	-.13	-.20	-.40**	-.03	-.42*	-.37**	-.50*	-.40*
3	Persy Ad. Area	-.35**	-.56*	-.36**	-.19	-.34**	-.15	-.40**	-.30	-.24	-.22	-.45*
4	Soc.Rel.Area	-.20	-.18	-.00	+.09	-.14	+.00	-.26	-.20	-.23	+.10	-.10
5	Un-Job-Satisfaction	-.34**	-.62*	-.40*	-.20	-.36**	-.34	-.11	-.54*	-.46	-.53	-.59*
6	Off-Job-Satisfaction	-.33	-.45*	-.27	-.08	-.29	-.09	-.35**	-.22	-.15	-.09	-.35*
7	Job Satisfaction(T)	-.35**	-.65	-.40*	-.17	-.41	-.29	-.28	-.48	-.38**	-.41**	-.58*

* SIGNIFICANT .01 LEVEL

** SIGNIFICANT .05 LEVEL

TABLE 5

Inter correlation between factors of role stress and job satisfaction scores
obtained by systems analysts (Pub).

	IRD	RS	REC	RE	RO	RI	PI	SRD	RA	RIn	ORS (T)
1. Job Area	-.23	-.50*	-.35**	-.15**	-.22	-.43*	-.14	-.40**	-.36**	-.38**	-.50*
2. Management Area	-.05	-.59*	-.54*	-.28	-.47*	-.44**	-.35**	-.41**	-.45*	-.56*	-.65*
3. Personal Adjustment Area	.23	-.27	-.21	-.15	-.21	-.26*	-.46*	-.40**	-.42**	-.17	-.38**
4. Social Relations Area	-.04	-.43*	-.21	-.32	-.32	-.52*	-.52*	-.53*	-.41**	-.33	-.57*
5. On-The-Job Satisfaction Area	-.13	-.58*	-.50*	-.32	-.40**	-.47*	-.29	-.43*	-.44*	-.52*	-.60*
6. Off-The-Job Satisfaction Area	+.11	-.46*	-.28	-.21	-.30	-.54*	-.57*	-.54*	-.47*	-.29	-.55*
7. Job Satisfaction	-.03	-.63*	-.48*	-.33	-.42*	-.60*	-.49*	-.57*	-.55*	-.51*	-.70*

* Significant at .01 level

** Significant at .05 level

TABLE 6

INTERCORRELATION BETWEEN FACTORS OF ROLE STRESS AND JOB SATISFACTION IN CASE OF

SYSTEMS ANALYSIS (PRIVATE)

Sl. No.	Variables	IRU	RS	REC	RE	RU	RI	PI	SKD	KA	RIN	URS(T)
1	Job Area	-.41**	-.55*	-.50*	-.41*	-.43*	-.39*	.00	-.46	-.41**	-.48	-.53
2	Management Area	-.45*	-.51*	-.43*	-.40*	-.45*	-.22	-.17	-.36**	-.39**	-.48	-.42**
3	Perso.Adj. Area	-.05	-.20	-.25	+.14	-.29	-.55*	-.14	-.23	.00	-.27	-.3-
4	Sec. Kela.Area	-.14	-.20	-.30	+.02	-.40*	-.30	-.04	-.21	-.02	-.40**	-.35
5	On-the-Job Satisfaction	-.41*	-.56	-.48	-.45	-.48	-.33	-.09	-.45*	-.42*	-.55*	-.52*
6	Off-the-Job Satisfaction	-.30	-.45	-.55	-.02	-.41**	-.36**	-.22	-.23	-.21	-.27	-.23
7	Job Satisfaction (T)	-.38	-.60*	-.01	-.29	-.53	-.45	-.17	-.41**	-.39**	-.49**	-.45

* Significant at .01 level

** Significant at .05 level